

### **In the claims**

The claims in the present case are presented below with amendments, and appropriate status indication:

1-18 (Cancelled)

19. (New) A system for development of information systems for health care, comprising:

- a server coupled to a data repository;

- a software operating system executing on the server from a machine-readable physical medium, the operating system comprising:

  - a foundation tier providing functions at least for backup and recovery of the software operating system and its components and for messaging protocol;

  - a domain services tier communicating with the foundation tier, the domain services tier providing APIs to access and operate on the stored information including at least a Drug Interaction Information store, patient identity management applying a unique identifier for identifying a patient across geographical barriers, using a patient identifier, a hospital identification code, and a unique geographical code, and a workflow SW engine; and

  - an application service tier providing specific applications for at least admission, discharge and transfer operations, and for electronic medical record management;

  - wherein the applications in the application services tier are business processes implemented as state machines by users interacting with the workflow SW module, changes in state being triggered by events taking place within the operating system, external to the operating system, or by user interaction, and wherein the messaging protocol is triggered by internal events, and provides updates of states between the business processes.

20. (New) The system of claim 19 wherein the messaging protocol in the foundation tier uses a Publish-Subscribe model for communication between tiers and between internal modules, including between the applications operating in the application service tier.

21. (New) The system of claim 19 wherein the business processes are instantiated as state machines undergoing state transitions, the workflow engine provides an XML-based configuration mechanism enabled for a user to define process states, events and state transitions, which can be triggered across tiers or within a tier.

22. (New) The system of claim 19 wherein each call by an API is routed to a quality of service (QoS) subsystem in the foundation tier before taking up for processing, thus guaranteeing QoS upfront instead of relying on statistical parameters after the operations.

23. (New) The system of claim 19 wherein any application in the application service tier that requires entry of clinical terms is constrained in the workflow to route the clinical terms through a health-care standards subsystem in the domain services tier before acceptance as clinical data, thus ensuring standards compliance.

24. (New) The system of claim 19 further comprising a Globally Controlled Locally Managed (GCLM) security authorization assignment and management subsystem, wherein users are assigned to non-overlapping security domains each with a different administrator, resources are assigned security tokens listing atomic unit privileges, the resources grouped into application roles that serve as lowest exposed units for an application configurator, than grouped into business roles by the site administrators, the business roles serving as the lowest assignment units to end-users of the system, thus managing security authorizations across large multi-site healthcare organizations.

25. (New) The system of claim 19 wherein the data backup and recovery functions are accessed each time data access APIs are used, and these functions provide, in addition to backup, online analytical processing (OLAP) and knowledge integration functionalities.